

CTA 2017-2021 CAPITAL IMPROVEMENT PROGRAM

FY 2017 - 2021 CIP Preliminary Marks

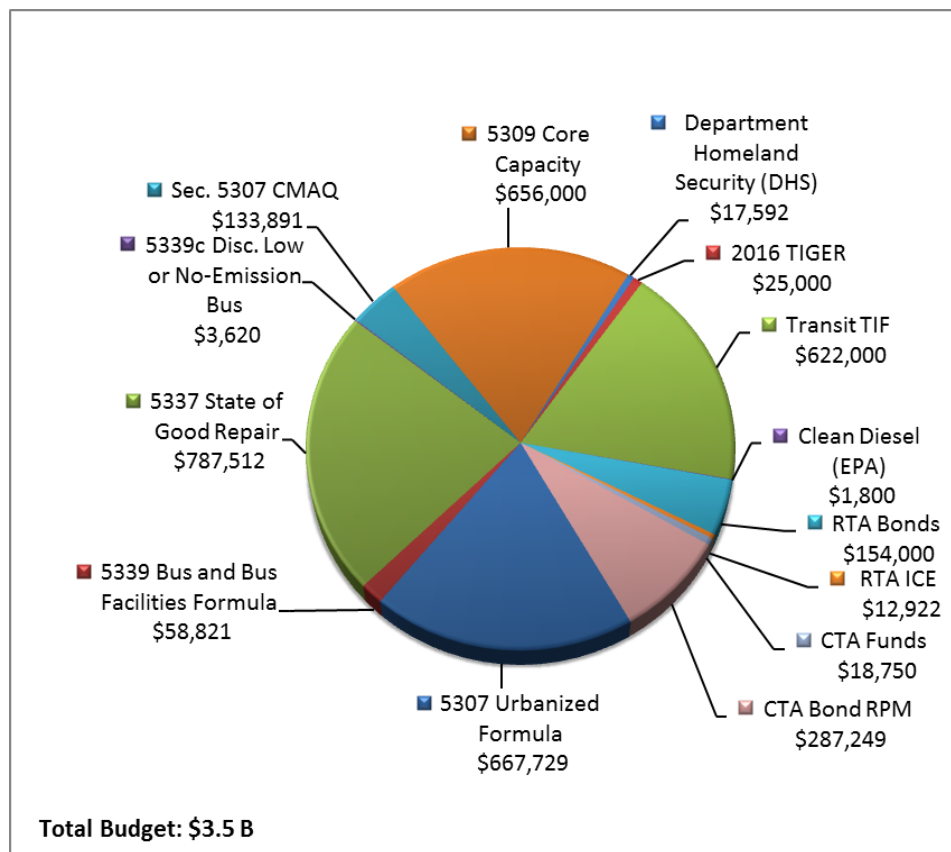
CHICAGO TRANSIT AUTHORITY

Sources of Funds	2017	2018	2019	2020	2021	TOTAL
5307 Urbanized Formula	128,171,768	130,793,360	133,493,404	136,250,897	139,019,454	667,728,883
5339 Bus and Bus Facilities Formula	11,278,585	11,515,343	11,759,339	12,008,762	12,259,146	58,821,175
5337 State of Good Repair	152,165,791	154,793,527	157,459,458	160,170,747	162,922,910	787,512,433
Subtotal FTA	291,616,144	297,102,230	302,712,201	308,430,406	314,201,510	1,514,062,491
5339c Disc. Low/No-Emission Bus	3,620,000	0	0	0	0	3,620,000
Sec. 5307 CMAQ	0	25,000,000	8,890,857	100,000,000	0	133,890,857
5309 Core Capacity ⁽¹⁾	256,000,000	100,000,000	100,000,000	100,000,000	100,000,000	656,000,000
Department Homeland Security (HLS)	5,591,730	3,000,000	3,000,000	3,000,000	3,000,000	17,591,730
2016 TIGER	25,000,000	0	0	0	0	25,000,000
Clean Diesel Assistance (EPA)	1,800,000	0	0	0	0	1,800,000
Other Federal	292,011,730	128,000,000	111,890,857	203,000,000	103,000,000	837,902,587
AVAILABLE FEDERAL	583,627,874	425,102,230	414,603,058	511,430,406	417,201,510	2,351,965,078
RTA Bonds	75,000,000	0	0	79,000,000	0	154,000,000
RTA ICE	0	6,350,000	6,572,000	0	0	12,922,000
Transit TIF	622,000,000	0	0	0	0	622,000,000
CTA Funds	0	0	15,000,000	0	0	15,000,000
CTA - Bus Proceeds	1,875,000	1,875,000	0	0	0	3,750,000
CTA Bond for RPM	0	287,249,193	0	0	0	287,249,193
Other local	698,875,000	295,474,193	21,572,000	79,000,000	0	1,094,921,193
AVAILABLE STATE/LOCAL	698,875,000	295,474,193	21,572,000	79,000,000	0	1,094,921,193
New Funding Available	1,282,502,874	720,576,423	436,175,058	590,430,406	417,201,510	3,446,886,271
CTA Share	27,780,000					27,780,000
RPM Operating Funds	61,749,481					61,749,481
TOTAL Programmed Funds	1,372,032,355					3,536,415,752

(1) FTA Full Funding Grant Agreement of Core Capacity funding for Red/Purple Modernization Phase One. Includes prior 2014 award of \$35,000,000; 2017-2021 plan of \$656,000,000; and out year receipts of \$265,607,772 totals to \$956,607,772.

FY 2017 - 2021 CIP Preliminary Marks

Sources of Funds	TOTAL
5307 Urbanized Formula	\$ 667,729
5339 Bus and Bus Facilities Formula	\$ 58,821
5337 State of Good Repair	\$ 787,512
5339c Disc. Low or No-Emission Bus	\$ 3,620
Sec. 5307 CMAQ	\$ 133,891
5309 Core Capacity	\$ 656,000
Department Homeland Security (DHS)	\$ 17,592
2016 TIGER	\$ 25,000
Transit TIF	\$ 622,000
Clean Diesel (EPA)	\$ 1,800
RTA Bonds	\$ 154,000
RTA ICE	\$ 12,922
CTA Funds	\$ 18,750
CTA Bond RPM	\$ 287,249
CTA Share for Competitive Grants	\$ 27,780
RPM Operating Funds	\$ 61,749
New Funding Available	\$ 3,536,416



As planned and when new Federal Authorization totals are marked in the CIP, over 95% of expected sourced receipts are to come from federal programs and CTA Sources, and the remaining 5% from the RTA..

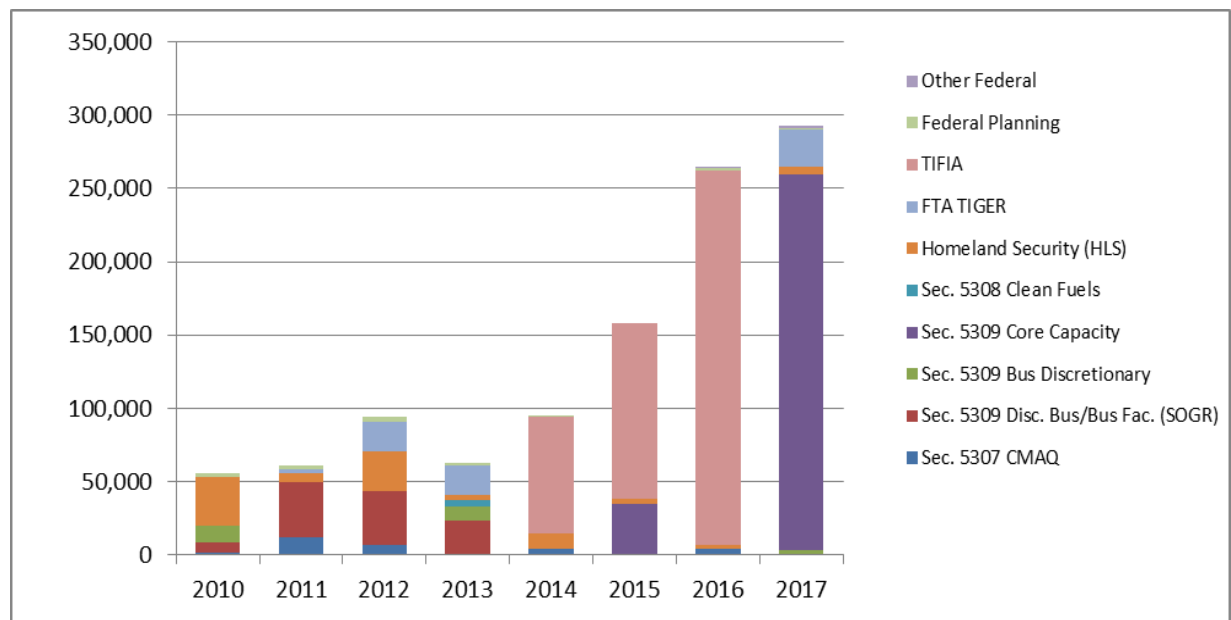
Funding Source Description (continued)

Federal Discretionary Programs

FTA Core Capacity	Transportation Infrastructure Financing and Innovation Act (TIFIA):	Transportation Investment Generating Economic Recovery (TIGER)	Congestion Mitigation and Air Quality (CMAQ)	Federal Department of Homeland Security (DHS)	FTA Bus, Safety, Planning (UWP), Federal EPA	Other Federal Agencies : EPA, Commerce.
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FY 2017–2021 funding is determined on a project award basis

Discretionary funding awards vary from yr. to yr. Timing of receipts depend on project approval, budget appropriation, grant administration,



Funding Source Description (continued)

City of Chicago

Provides Tax Incremental Financing (TIF) Funds to CTA, and CDOT Constructs Project Within Their Right of Way.

Completed TIF Projects:

- Cermak Station (Green) CDOT \$50M
- 18th Street Connector Dan Ryan (Red South) - \$11.5M
- Harrison Subway Station (Red) - \$10M
- Roosevelt Station (Red) - \$7M
- Bus Loop Link - \$32M

Ongoing CDOT Projects:

- Washington/Wabash Station - \$75M
- Grand, Chicago, Division - \$4M
- Jefferson Park - \$5M

Pending TIF CTA Project:

- New Damen Green Line Station

Transit TIF Program

- Red Purple Modernization - \$622M

Completed
Bus Loop Link



New Washington/Wabash
Station



New Damen Green Line
Station



Funding Source Description (continued)

Regional Transportation Authority (RTA):				
RTA Bonds Issues : FY 2017-18 \$150M FY 2020 \$158M Funds distributed: CTA 50%; Metra 45%; Pace 5%	RTA Innovation, Coordination and Enhancement (ICE) Funds distributed: CTA 48%; Metra 39%; Pace 13%	RTA Discretionary Sales Tax	Transit Signal Priority	RTA Adminstrates State Funding Programs including State Transportation Bonds



TRANSIT SIGNAL PRIORITY

UP TO
15%
REDUCTION IN BUS
TRAVEL TIMES

**FEWER
RED
LIGHTS
FEWER
DELAYS**

Transit Signal Priority (TSP) utilizes existing vehicle location and wireless communication technologies to advance or extend green times at signalized intersections. When a TSP-equipped bus is late, it automatically requests extra green time so it can proceed through the intersection. The result: reduced delays at traffic signals, and increased service reliability and travel speeds for bus riders.

LESS CO₂

GET THERE ON TIME

**SAVES
FUEL**

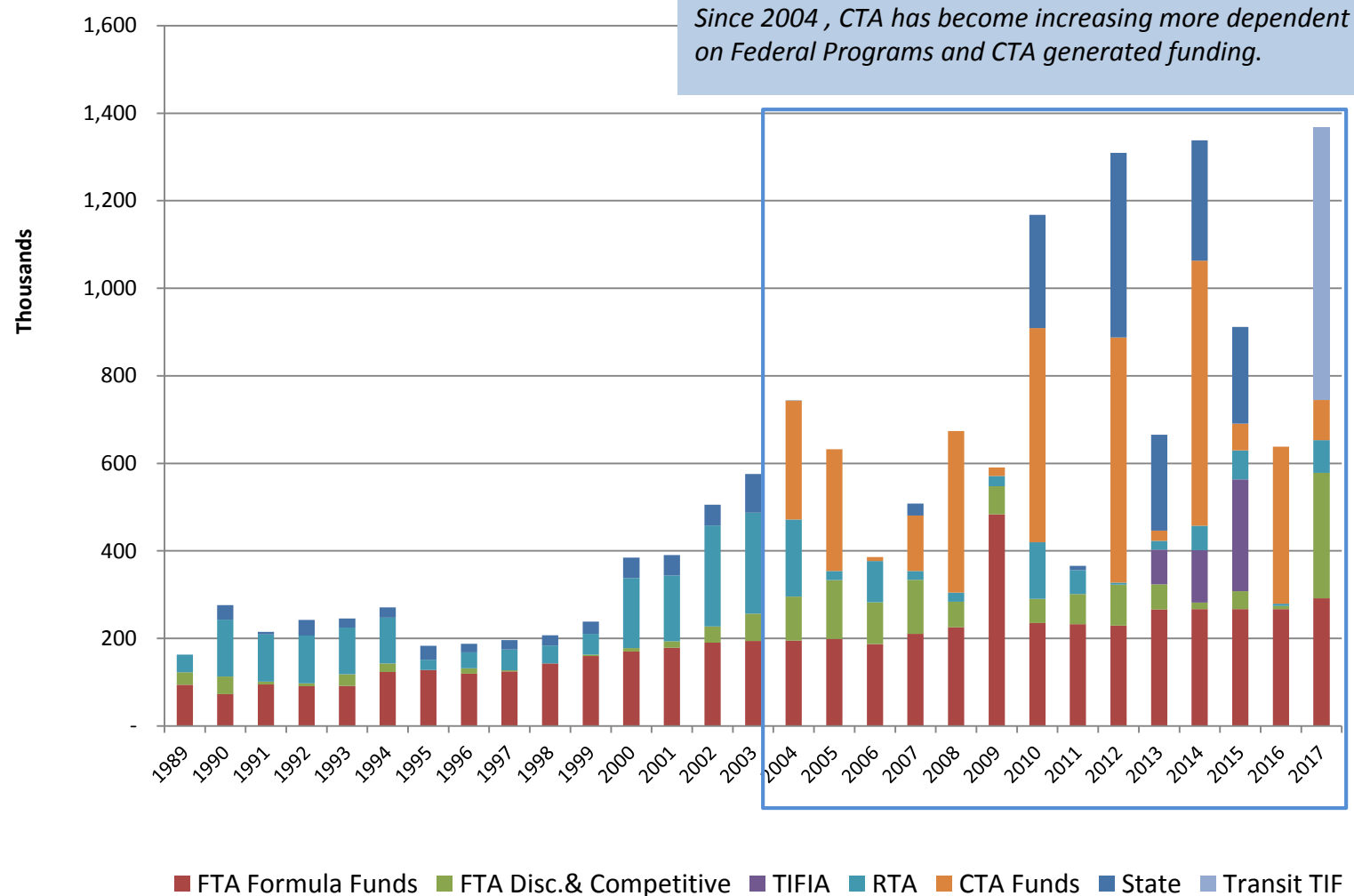
400 SIGNALIZED INTERSECTIONS
across MULTIPLE JURISDICTIONS

100 MILES OF
ROADWAY

13 PRIORITY
CORRIDORS

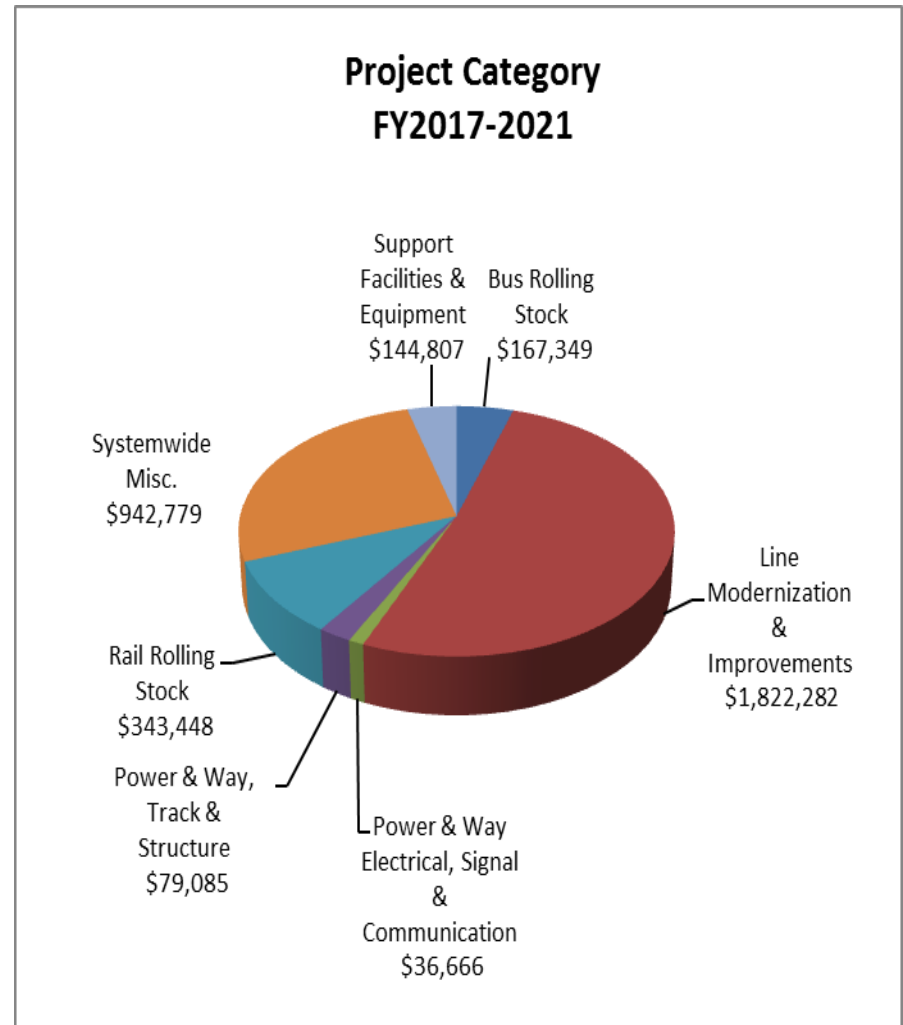
1 REGIONAL
TSP SYSTEM

Federal, State & Local Funding Programs FY 1989 to Present



Five Year Project Category Allocation (thousands)

Project Category	Budgets
Bus Rolling Stock	\$ 167,349
Line Modernization & Improvements	\$ 1,822,282
Power & Way Electrical, Signal & Communication	\$ 36,666
Power & Way, Track & Structure	\$ 79,085
Rail Rolling Stock	\$ 343,448
Systemwide Misc.	\$ 942,779
Support Facilities & Equipment	\$ 144,807
Total 5 Year CIP Allocation	3,536,416



2017 Capital Projects: Vehicles



Buses

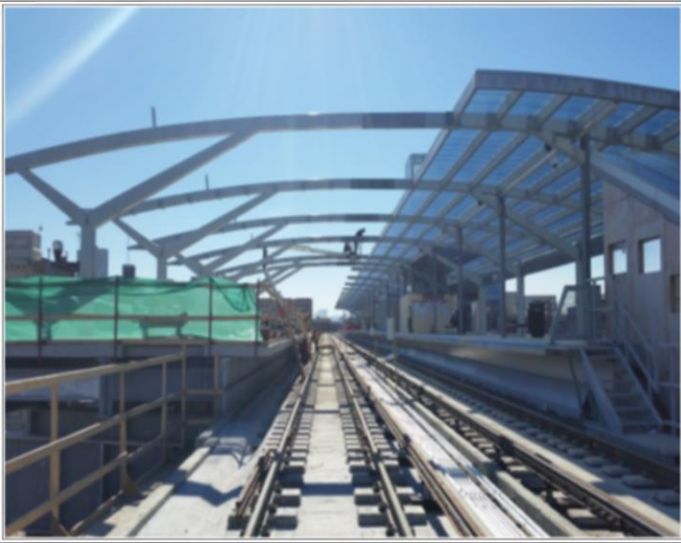
- 425 New NOVA buses now in service in 2017.
- Purchase Up to 30 Electric Buses & Charging Infrastructure – RFP Mid-2017.
- Overhaul 208 of CTA Series Artic Hybrids
- Annual Preventive Maintenance Programs

Railcars

- “7000 Series” rail cars, 400 Car Order to replace over aged cars (2600/3200 Series)
 - contract awarded in 2016, currently in the development phase, first set of cars to be delivered in 2019.
- Overhaul 258 Rail Cars “3200 Series” extends life through 2021/2022
 - 120 cars complete; Remaining 138 cars will be overhauled in 2017/2018; Project Completed 3rd Qtr. 2018
- Annual Preventive Maintenance Programs



2017 Capital Projects – Major Stations



Wilson Transfer Station – Red Line North

Construction approximately 75%, with project complete through 2017. New Station to include:

- 2 new 10 car concrete platforms, full canopies
- New Main Station, two new auxiliary entrances
- New elevated structure and track
- Elevators, escalators, lighting, signage, fare control, security cameras, and artwork
- New Transfer point between Red and Purple Lines

95th Street Terminal Expansion – Red Line South

Design/Construction underway on the Main Terminal, with project complete through 2018. New Station to include:

- replacement and expansion of the terminal, platform and vehicle and pedestrian bridges.
- additional elevators, escalators, fare array, wider sidewalks and waiting areas
- new expanded bus bays will be provided around the terminal



2017 Capital Projects - Infrastructure



Traction Power – Substation Renewal Program

Red Line - Farewell, Hill, Armitage (North); Princeton and State (South); Kimball (Brown) are complete.

Milwaukee & East Lake (Blue), and Illinois (Brown) design/construction underway. East Lake (State/Lake), key rail power facility that provides power to all railcars entering Loop.

The CIP invests in tactical improvements to be made to power equipment system wide. Maximizing the use of limited resources to replace equipment or provide redundancy to keep system operating effectively.

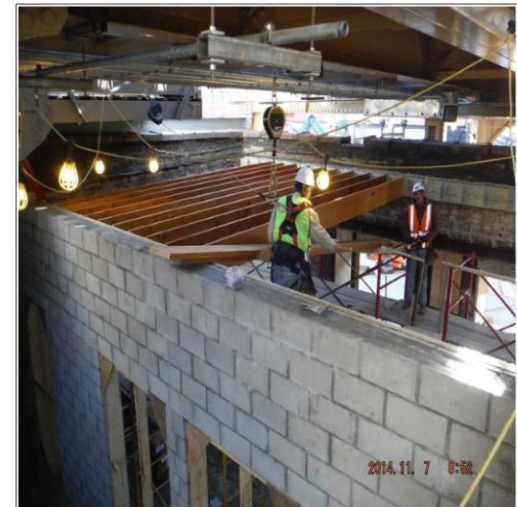
Facilities State of Good Repair Program

Improvements to building envelope, systems, vehicle servicing, touching all bus/rail facilities – multiple year effort continues

Investments to repair or replace facility deficiencies system wide. Needs are evaluating on a yearly basis.

Modernize rail yard facilities addressing multiple “SOG” needs – first of 12 yards planned is Desplaines Yard (Blue).

Construction of Non-Revenue Vehicle Shop (Phased funding)



2017 MAJOR INITIATIVES

YOUR NEW BLUE



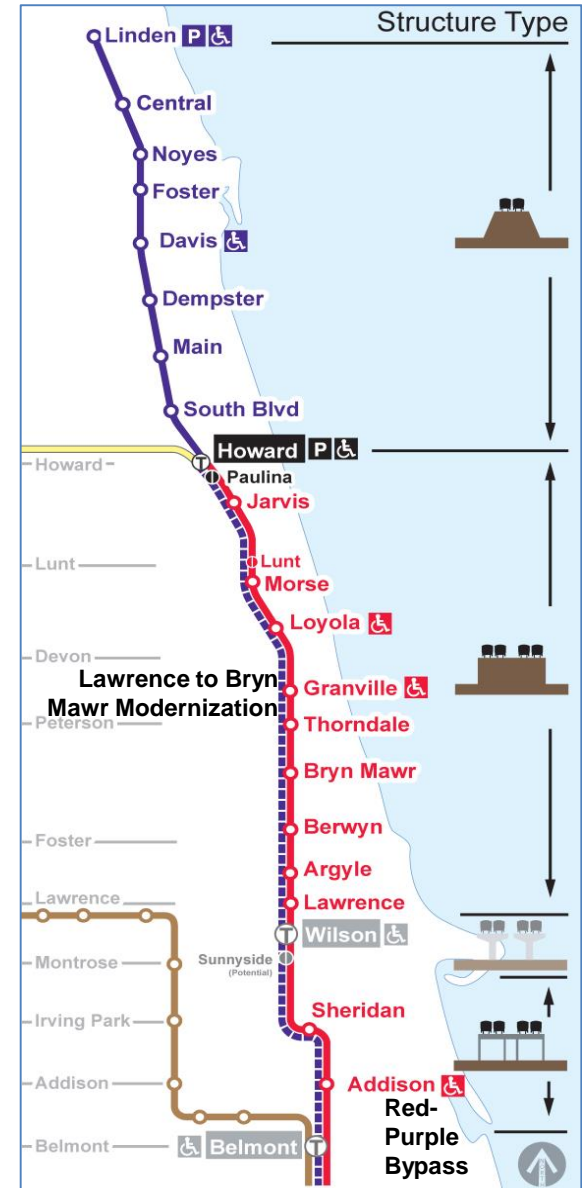
Your New Blue

- Upgrade the Blue Line O'Hare Branch infrastructure that stretches over 19 miles from downtown Chicago to O'Hare International Airport. Includes upgrading slow zones and modernizing outdated stations – \$70.3M is dedicated out of the current plan.
- Work completed includes the renewal of elevated track (Belmont to Damen), and the rehabilitation of eight of the thirteen stations (Damen, Western, California, Addison, Irving Park, Montrose, Harlem and Cumberland). Design/Construction have begun on the Power Substations at East Lake and Milwaukee.
- ***When complete, project provides for the following upgrades:***
 - Track renewal intended to reduce slow zones on the elevated portion of the O'Hare Branch
 - Station Improvements with emphasis on the safety, security, and accessibility – work being done on 13 Stations
 - Full rail signal replacement between O'Hare and Jefferson Park
 - Power upgrades and replacement of equipment to improve reliability and allow for increase service, reducing crowding and dwell time.

Red and Purple Modernization

Phase I

- **Lawrence to Bryn Mawr Modernization Project**
 - Replace 1.3 miles of 90-year-old track/embankment
 - Rebuild and Expand four stations and add ADA accessibility
- **Red-Purple Bypass Project**
 - Almost 150,000 rides every weekday
 - Current bottleneck precludes CTA from adding trains
 - Bypass allows CTA to run more trains that could serve 7,200 additional customers, PER HOUR
- **Corridor Signal Improvements**
 - From Belmont to Howard
- **On January 9th, the CTA signed the Full Funding Grant Agreement with the FTA that is the final step in securing the funding needed for the \$2.1 billion first phase of RPM project.**
 - Capital sources of project funds include FTA Core Capacity, Transit TIF, City TIF, CTA, and FTA CMAQ.



Summary of 2017-2021 Capital Projects Underway or Planned

New Rail Cars

- Base Order 400 “7000 Series” – Budget: \$719M CIP:\$216M.
- Cars to be delivered starting in 2019 through 2022 .
- Options for Up to 446 additional cars - contract in FY 2021.

New Buses

- In 2017, 425 standard buses in service - \$223M
- Advertise in 2017 for order of up to 30 Electric Buses – total \$34.7M.
- First of three planned Bus Orders to replace 2006 New Flyers

Overhaul Revenue Fleet

- Continue Life extending work on 258 railcars “3200 Series” - \$183M;
- ¼ Life overhaul “5000 Series.”
- Overhaul of 208 Articulated Hybrid Buses - \$60M
- Life extending overhaul of UP to 450 New Flyers
- Fleet Maintenance \$25M

Replace Power Distribution

- Construct substations: Illinois (Brown), Broadway (Red);
- Rehabilitate substations : Milwaukee, East Lake (Blue):
- Tactical Equipment Upgrade: System wide

Equipment, Non-Revenue Vehicles

- Heavy Rail borne – Diesel Locomotives
- Maintenance vehicles & equipment
- Support operations
- Total Investment 33.8M.

Facilities SOGR Program

- Rail Yard Modernization - \$26.3M
- Non Revenue Vehicle Shop – Budget \$60M; CIP \$40M
- Facilities Maintenance (SOGR) - \$54M

Replace Rail Signal System

- Brown Line rail - complete design, construct in 2017 - \$50M
- Blue Line O’Hare – Design/Build Contract in 2017 - \$197M

Rehabilitate Stations

Gateway Stations:

- Garfield (Green)
- Belmont (Blue)
- System Upgrades
- Total Investment - \$73.1M

Rail Line Modernization

- Blue Line O’Hare Branch
- RPM – Phase One
- Red Line South Extension – Preliminary Engineering

Security/Systems Enhancement

- Security, surveillance, and communication.
- Ashland Avenue Traffic Signal Prioritization
- Total Investment \$37.6M

Track & Structure

- Slow zone remediation - \$79.1 M
- Recently completed Green (Lake) and Purple (Express) Lines

Information Technology

- Systems/Applications/Hardware - \$11.2M

Financial Commitments

- Debt Service, Leases

Thank You

Appendix

CTA FY 2017 -2021 CIP Program of Projects

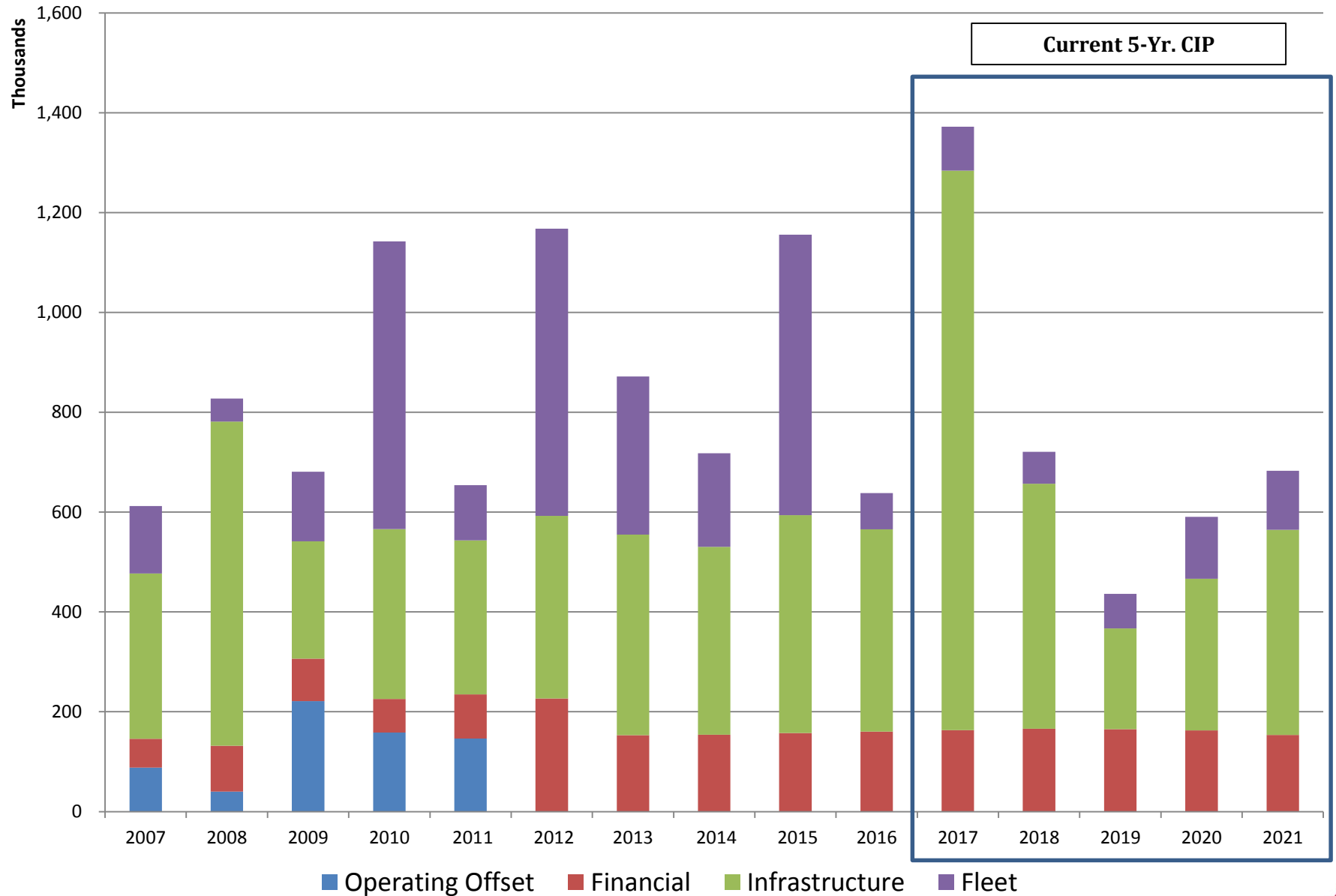
Project Title	Funded	2017	2018-2021	5yr Total	Project Total	Description
Buses: (Millions)						
Purchase Up to 30 Electric Buses	\$26.5	\$8.2	\$0.0	\$8.2	\$34.7	FY 2017 completes funding for the Electric Bus procurement. Special discretionary funds awarded. Projects provides for buses and charging infrastructure.
Next Bus Order	\$0.0	\$0.0	\$24.5	\$24.5	\$24.5	FY 2018-2021 initial funding for the first of an expected three future orders to replace the New Flyer 1000 Series Buses which represent of 55% of CTA Fleet. Initial funding for future Order to replace the New Flyer buses.
Overhaul Artic Hybrid Buses (208)	\$45.3	\$14.7	\$0.0	\$14.7	\$60.0	4000 Series Artic Hybrid buses placed into service in 2008. Work to begin in 2016.
Overhaul - Artic Buses (100)	\$0.0	\$0.0	\$11.0	\$11.0	\$11.0	FY 2018-2021 funding for the startup of the overhaul on a 100 Artic Buses, and the life extending overhaul on up to 457
Life Extending Overhaul (Up to 457)	\$0.0	\$0.0	\$49.1	\$49.1	\$49.1	
Bus Maintenance	\$0.0	\$2.5	\$10.0	\$12.5	\$12.5	Annual program for bus to address preventive maintenance work outside of the scheduled overhaul work.
Rail cars:						
Purchase Up to 846 - 7000 Series	\$329.0	\$39.3	\$176.7	\$216.0	\$545.0	Installment funds of \$216M with prior funds provide \$329M for the proposed 400 car base order. Project total \$719M.
Overhaul 3200 Series (258)	\$164.0	\$20.7	\$0.0	\$20.7	\$184.7	Extend life of cars placed in service in 1993. Overhaul work continues through 2017 and is expected to be complete by the spring of 2018. Cars to be replaced with 7000 Series Order beginning in FY 2023.
Overhaul 5000 Series (714)	\$0.0	\$0.0	\$94.2	\$94.2	\$94.2	First phase of funding for overhaul of 5000 Series Cars in cars schedule to begin in 2019-2020. Estimated project total equals \$305M. Future outyear funding will be required to complete overhaul work.
Rail Car Maintenance	\$0.0	\$2.5	\$10.0	\$12.5	\$12.5	Annual program for rail to address preventive maintenance work outside of the scheduled overhaul work.
Equipment & Non-Revenue Vehicles:						
Non-Revenue Vehicles	\$0.0	\$7.9	\$7.1	\$15.0	\$15.0	FY 2017-2020 funding is planned for the purchase of up to four diesel locomotives and building enclosures for storage.
Equipment - Open Fare System	\$63.0	\$1.9	\$16.9	\$18.8	\$81.7	Provides funding for monthly contract payment tied to equipment costs.
Facilities Improvements:						
Facilities State Of Good Repair	\$0.0	\$7.9	\$5.9	\$13.9	\$13.9	Investments to repair or replace facility deficiencies system wide. Needs are evaluating on a yearly basis, the CTA is striving to decrease the environmental impact of its rail stations, offices and maintenance facilities.
Rail Yard Modernization Systemwide	\$6.3	\$10.0	\$10.0	\$20.0	\$26.3	FY 2017-2019 Investments provide for repair or modernization of rail yard facilities to allow for the efficient train maintenance and operation in and out of the yards. With prior funds, total investment of \$26.2M. Program Goal = \$50M.
Non-Revenue Vehicle Shop	\$20.8	\$0.0	\$40.0	\$40.0	\$60.8	Phased funding to provide for construction of vehicle shop for non-revenue equipment. With prior funds of \$20.8M, Total investment is \$60.8M.
Facilities Maintenance	\$0.0	\$8.0	\$32.0	\$40.0	\$40.0	Annual program for facilities to address preventive maintenance work outside of the scheduled rehabilitation work. SOGR to maintain and upgrade Bus Garages, Rail Shops, Maintenance Facilities. Improvements to building's structure, interior, systems, equipment.
Power & Way:						
Substations - Illinois & Broadway	\$18.7	\$19.7	\$0.0	\$19.7	\$38.4	FY 2017 investment final phase of funding to construct substation at Illinois (Brown), and Broadway (Red).
Traction Power (Equipment)	\$0.0	\$0.0	\$17.0	\$17.0	\$17.0	FY 2018-2019 invests in a program that provides for tactical improvements to substations and equipment system wide, maximizing the use of limited resources to replace equipment that cannot provide needed power or required redundancy to keep system operating effectively

CTA FY 2017 -2021 CIP Program of Projects – Continued

Project Title	Funded	2017	2018-2021	Syr Total	Project Total	Description
Rail Stations:						
Belmont (Blue) Gateway	\$0.0	\$10.2	\$4.0	\$14.2	\$14.2	Enhancements to the station are to include sculpture, landscape, window/glass and art. Customer amenities are proposed to the outside station area such as bus and train arrival signage, bus boarding technology, way finding and pre-boarding payment methods.
Garfield (Green) Gateway	\$0.0	\$50.0	\$0.0	\$50.0	\$50.0	A modern, convenient transit gateway at the Garfield Green Line Station in the Washington Park neighborhood, when redesigned and constructed the station will improve the integration of multiple transportation modes.
Upgrades Systemwide	\$0.0	\$0.0	\$8.9	\$8.9	\$8.9	Ongoing initiative to improve station elements and adjacent infrastructure.
Rail Structure:						
Track & Structure Systemwide	\$0.0	\$17.1	\$61.9	\$79.1	\$79.1	Repairs to the ROW along the elevated structure throughout the rail system. CTA continues to rehabilitate track and structure elements to eliminate slow zones. Recent areas of focus have been on the Purple and Green (Lake) lines.
Rail Line Improvements and Modernization:						
Your New Blue (YNB)	\$369.2	\$30.4	\$39.9	\$70.3	\$439.5	FY 2017-2020 investments along with prior programmed funds, secures all project funds required to complete the Milwaukee and East Lake power substation upgrades, to replace the O'Hare Branch Signals, to upgrade a total of five rail stations in the Dearborn and Kimball subways, and to renovate the Jefferson Park Rail and Bus Stations.
Red/Purple Modernization	\$113.7	\$939.7	\$812.2	\$1,752.0	\$1,865.7	FY 2017-2021 investments along with a Full Funding Guaranteed Agreement (FFGA) with the FTA will allow the CTA to advance from Preliminary Engineering into the construction phase. The RPM Phase One project is the CTA's largest capital investment to date.
Red Line Extension (South)	\$80.0	\$0.0	\$0.0	\$0.0	\$80.0	Funding for Planning and Preliminary Engineering
Construction Program Management:						
Program Management	\$26.8	\$6.1	\$26.8	\$32.9	\$59.6	Management team to assist CTA staff in planning and management of the agency's Capital Construction Program.
Information Technology:						
Upgrade Office Computer Systems	\$0.0	\$2.2	\$9.0	\$11.2	\$11.2	Annual program for cyclical replacement of system hardware, system applications, and component parts.
Security/System(s) Enhancements:						
Implement Security Projects	\$0.0	\$0.0	\$12.0	\$12.0	\$12.0	Communication and transit security projects to enhance security and safety for CTA employees and customers.
CPD Security Operations	\$0.0	\$5.6	\$0.0	\$5.6	\$5.6	FY 2017 invests in Chicago Police Department initiatives to secure CTA operations and system
Communication/Video Systems	\$0.0	\$4.0	\$16.0	\$20.0	\$20.0	FY 2017-2021 invests in the Implementation/Replacement/Upgrade of communication, surveillance, and transit security systems to enhance security and safety for CTA employees and customers.
Grant Programs						
RTA Innovation, Coordination, & Enhancement Program	\$0.0	\$0.0	\$12.9	\$12.9	\$12.9	Program invests in projects that make enhancements to system applications, processes, procedures, and management.
Congestion Mitigation & Air Quality	\$0.0	\$0.0	\$8.9	\$8.9	\$8.9	FY 2019 CMAQ funds invest in the implementation of a traffic signal priority system from Cermak to Irving Park road. While current work is underway to complete system from Cermak south to 95th.
Financial Commitments:						
CTA Bond Debt Service	\$1,088.9	\$142.6	\$589.8	\$732.5	\$1,821.4	Debt Service on CTA issued Bonds.
Bus Leases	\$133.4	\$14.5	\$32.9	\$47.3	\$180.7	Lease payments 200 Standard (40 ft.) New Flyer buses and 150 Artic Hybrid (60 ft.) buses. Placed in service 2007/08.
Office Building Lease	\$70.0	\$6.2	\$24.8	\$30.9	\$100.9	Lease payment for Office Building Headquarters.
CAPITAL PROJECT TOTAL						
				\$3,536.4		

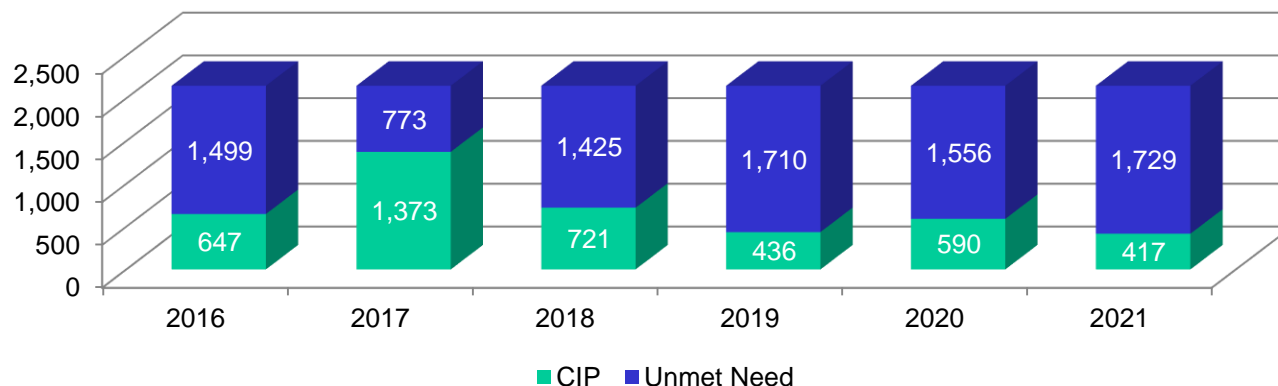


FY 2017-2021 Project Asset Categories



CTA Investment Needs to Get to SOGR in Ten Years....

CIP Funding & Unmet Annual Need (in millions)



****CTA's Ten Year Capital Need \$22.1 Billion.....***

Mode	SGR Backlog	10 Yr. Normal Reinvestment	Total
Rail	\$11.36	\$6.82	\$18.18
Bus	\$1.56	\$2.37	\$3.93
Share	\$0.02	\$0.05	\$0.06
Total	\$12.94	\$9.24	\$22.17

***Source: RTA Capital Asset Condition Assessment Update – December 2014**

- CTA Capital Funds are insufficient to meet the goal of getting the System into a State of Good Repair (SOGR) by 2025.
- Annual need is approximately \$2.1 billion to reach SOGR.
- When Current Capital funding levels are considered, annual unmet needs of \$1.4 Billion plus remain.
- Current Funding level leads to disinvestment in System.

CTA SOGR Backlog and 10 Yr. Need By Mode (\$Millions)

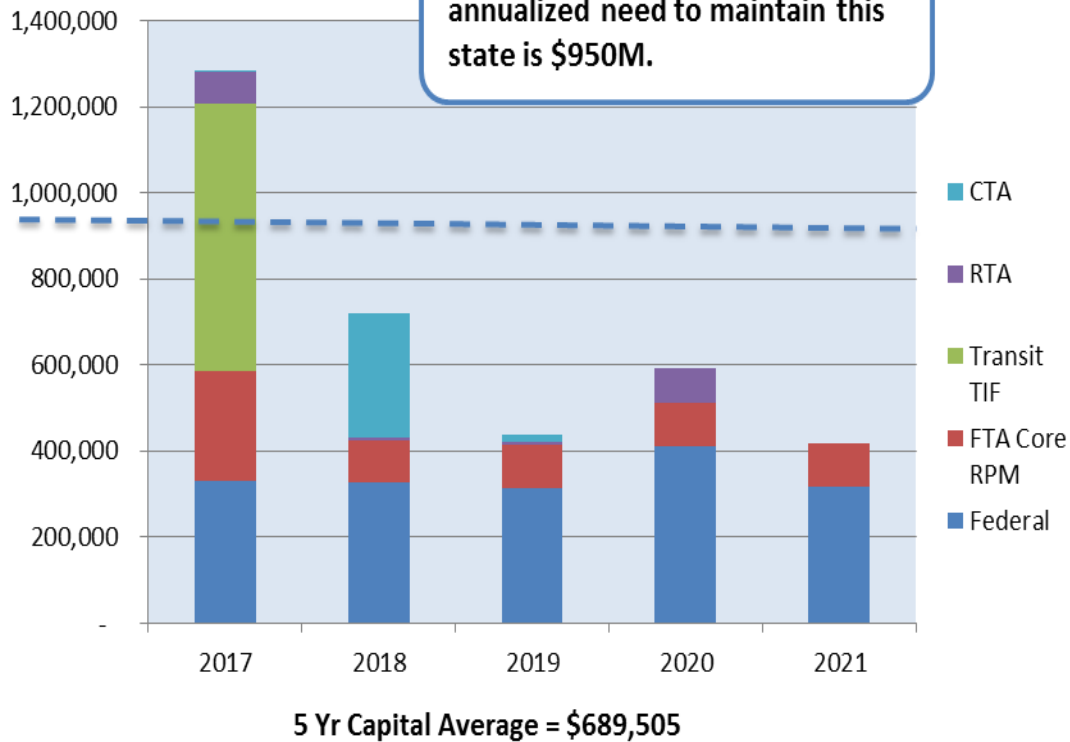
Mode	SGR Backlog	10 Yr. Normal Reinvestment	Total	% of Total
Rail	11.36	6.82	18.18	82.0%
Bus	1.56	2.37	3.93	17.7%
Share	0.02	0.05	0.06	0.3%
Total	12.94	9.24	22.17	100.0%
% of Total	58.3%	41.7%	100.0%	

***Source: RTA Capital Asset Condition Assessment Update – December 2014**

CTA's Unfunded Need

FY 2017-2021 CIP

If State of Good Repair is reached, annualized need to maintain this state is \$950M.



\$22.17 billion total over the next 10 Years



\$9.2 billion - to meet normal investment needs over 10 yrs.



\$260.5M plus annual deficit just to maintain system after SGR needs met.